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EXAMINER

BEHULU, ALEMAYEHU

ART UNIT PAPER NUMBER

2682

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/781,107

Applicant(s)

MURNAGHAN ET AL.

Examiner

Alemayehu Behulu

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/15/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-8, 15, 17, 18, 19, 23, 24, 26, 27, 30, 31, 32, 35, 36, 38, 39, 40, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso (U.S. Patent No. 5, 890,016) in view of Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060).

Referring claims 1, 26, 36 Tso discloses a wireless communication device (figures 1b, 2), which provide communication capability for a personal data assistant (figures 1a, 1b, 2, number 110), comprising: a housing adapted to detachably mate with personal data assistant (figure 1b, numbers 104, 110), a modem within the housing (figures 1a, 1b, 2, number 102), the modem adapted to provide communication capability for the personal digital assistant (column 2, lines 19-column 3, lines 39, column 4, lines 51-63). However, Tso fails to disclose logic in the housing adapted to periodically check for message notifications. But, Oh discloses logic in the housing adapted to periodically check for message notifications (figures 3-5, column 2, lines 30-column 3, lines 5, column 4, lines 16-column 5, lines 26); an indicator which is activated when the logic determines that the modem has received communications (figure 3, numbers 32 and 33, 31 and 36). Therefore, at the time of the invention it would have been obvious to a person of ordinary

Art Unit: 2682

skill in the art to combine Tso (U.S. Patent No. 5, 890,016) with Oh (U.S. Patent No. 6,415,021) in order to save power (as suggested by Oh, column 1, lines 15-column 2, lines 21). However, Tso and Oh fail to disclose notifications independently of the established communication link. But, DiGiorgio discloses notifications independently of the established communication link (column 3, lines 65-column 4, lines 42, column 6, lines 1-22, column 8, lines 66-column 9, lines 44, abstract). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Tso (U.S. Patent No. 5,890,016) and Oh (U.S. Patent No. 6,415,021) with DiGiorgio (U.S. Patent No. 6,286,060) so that variety of possible port types can be used to add functions to the device at the same time keeping it compact (as suggested by DiGiorgio column 1, lines 11-column 2, lines 2).

Regarding claims 2 and 27, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claims 1 and 26 respectively, the device further comprising: an interface board which provides connectivity between the modem and the personal data assistant (see Tso figures 1a, 1b, numbers 109, 114, column 2, lines 19-36).

Regarding claim 3, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 2, wherein the communications is electronic mail (see Oh column 2, lines 24-47).

Art Unit: 2682

Regarding claims 4, 30 and 39, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 1, wherein the personal data assistant is a hand-held data organizer (see Tso column 2, lines 37-56).

Regarding claim 5, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 1, the device further comprising: a battery for providing power to the wireless communication device (see Tso column 3, lines 1-10).

Regarding claim 6, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 2, the device further comprising: a connector board for providing electrical connectivity between the modem and the interface board (see Tso column 3, lines 1-10).

Referring claims 7 and 8, the combination Tso, Oh and DiGiorgio disclose mechanical offset as claimed (see Tso figure 1b).

Regarding claims 15 and 40, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 1, wherein the logic is a mini microchip (see Tso, figure 2, number 201, column 3, lines 39-45).

Regarding claim 17, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 1, wherein the message notifications indicates that a server has

Art Unit: 2682

communications for a user (see Oh, figures 3-5, column 2, lines 31-column 3, lines 5, column 4, lines 63-column 5, lines 23).

Regarding claims 18 and 24, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 17, herein the logic periodically checks for message notifications while the modem is not in use (see Oh, column 2, lines 31-47).

Regarding claim 19, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 1, wherein the housing provides a compact configuration for the wireless communication device (see Tso, figure 1b).

Regarding claim 22, the combination Tso, Oh and DiGiorgio disclose a wireless communication device as recited in claim 1, wherein the logic is a processor (see Tso, figure 1a, 1b, number 106, column 2, lines 19-36).

Regarding claims 28, 29, 37, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 27, the device further comprising: a housing which encloses the interface board, the modem and the logic, where the housing provides a compact configuration for the handheld communication device (see Tso figure 1b, numbers 109, 114, 102, 110, column 2, lines 19-36).

Art Unit: 2682

Regarding claims 31 and 38, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 26, wherein the indicator is activated while the personal data assistant is running another application (see Oh figure 4, numbers 43, 44, 46, figure 5).

Regarding claim 32, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 26, wherein the logic checks for communications received by the modem while the personal data assistant is running another application (see DiGiorgio column 3, lines 65-column 4, lines 42, column 6, lines 1-22, column 8, lines 66-column 9, lines 44, abstract).

Regarding claim 35, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 26, wherein the message notifications indicate when a user receives communications (see Oh figure 3, numbers 32 and 33, 31 and 36).

Regarding claim 41, the combination Tso, Oh and DiGiorgio disclose wherein the logic activates an indicator if communications have been received (see Oh figure 3, number 31 and 36).

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) further in view of Matsuo (U.S. Patent No. 6,525,293).

Regarding claim 9, the combination Tso, Oh and DiGiorgio disclose a wireless communication device recited in claim 5. But, Tso, Oh and DiGiorgio fail to disclose an LED light, where the LED light indicates the charge of the battery. However, Matsuo discloses an LED light, where the LED light indicates the charge of the battery (figure 1, numbers 102-105 and column 3, lines 7-54). Therefore, it would have been obvious to a person of ordinary skill in the art to combine Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) with Matsuo (U.S. Patent No. 6,525,293) in order to indicate the battery status of the communication device.

3. Claims 10, 11, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) in view of Bouvrette (U.S. Patent No. 4,626,622).

Regarding claim 10, the combination Tso, Oh and DiGiorgio disclose a wireless communication device recited in claim 1. But, the combination Tso, Oh and DiGiorgio fail to disclose an LED light, where the LED light indicates if the modem has received data. However, Bouvrette teaches an LED light, where the LED light indicates if the modem has received data (column 7, lines 3-12). Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) with Bouvrette (U.S. Patent No. 4,626,622) in order to indicate the communication status of the communication device.



Regarding claims 11 and 33, the combination Tso, Oh, DiGiorgio and Bouvrette disclose a wireless communication device as recited in claim 1 and 26 respectively, the device further comprising: a LED light, where the LED light indicates if the modem has transmitted data (see Bouvrette column 7, lines 3-12).

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) further in view of Kelly (U.S. Patent No. 4,819,235).

Regarding claim 12, the combination Tso, Oh and DiGiorgio disclose a wireless communication device recited in claim 1. However, the combination Tso, Oh and DiGiorgio fail to disclose an LED light, where the LED light indicates if the modem is registered. But, Kelly teaches an LED light, where the LED light indicates if the modem is registered (figure 1, numbers 26 and 28 and column 6, lines 63-column 7, lines 5). Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the art of Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) with Kelly (U.S. Patent No. 4,819,235) in order to indicate the communication status of modem.

5. Claims 13 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) further in view of Zicker (U.S. Patent No. 5,594,782).

Art Unit: 2682

Regarding claims 13 and 42, the combination Tso, Oh and DiGiorgio disclose a wireless communication device recited in claim 1. However, the combination Tso, Oh and DiGiorgio fail to disclose an LED light, where the LED light flashes to indicate server has communication. But, Sicker teaches the LED light flashes to indicate server has communication (figure 9, numbers 912 and 913 and column 23, lines 38-45). Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) with Zicker (U.S. Patent No. 5,594,782) in order to indicate the communication status of the server.

6. Claims 14, 20, 21,23, 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) further in view of Want (U.S. Patent No. 6,122,520).

Regarding claim 14, the combination Tso, Oh and DiGiorgio disclose a wireless communication device recited in claim 1. However, the combination Tso, Oh and DiGiorgio disclose fail to teach that the modem is a cellular digital packet data (CDPD) modem. But, Want teaches that the modem is a cellular digital packet data (CDPD) modem (column 5, lines 35-43). Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the art of Ausemes (U.S. Patent No. 6,434,403) with Want (U.S. Patent No. 6,122,520) so that more information can be transmitted.

Art Unit: 2682

Regarding claims 20, 43, the combination Tso, Oh, DiGiorgio and Want disclose a wireless communication device recited in claim 1, wherein the logic is a field programmable gate array (FPGA) (see Want column 9, lines 34-57).

Regarding claims 21, 45, the combination Tso, Oh, DiGiorgio and Want disclose a wireless communication device as recited in claim 1, wherein the logic is an application specific integrated circuit (ASIC) (see Want column 9, lines 34-57).

Regarding claims 23, 44, the combination Tso, Oh, DiGiorgio and Want disclose a wireless communication device as recited in claim 1, a wireless communication device as recited in claim 1, wherein the logic is programmable logic (see Want column 9, lines 34-57).

7. Claims 25, 34, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) further in view of Jones (U.S. Patent No. 6,191,743).

Regarding claims 25, 34 46, the combination Tso, Oh and DiGiorgio disclose a wireless communication device recited in claims 1, 26, 36 respectively. However, Tso, Oh and DiGiorgio fail to disclose a detachable antenna coupled with wireless communication device, where the detachable antenna may be detached when the wireless communication device is not in use. But, Jones teaches teach a detachable antenna coupled with wireless communication device, where the detachable antenna may be detached when the wireless communication device is not in use

Art Unit: 2682

(figure 4, and column 2, lines 44-58, column 4, lines 49-55, and claims 1, 2, 6-9). Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Tso (U.S. Patent No. 5,890,016), Oh (U.S. Patent No. 6,415,021) and DiGiorgio (U.S. Patent No. 6,286,060) with Jones (U.S. Patent No. 6,191,743) in order to provide an antenna interface for PDA that allows the user to select a preferred placement of the antenna instead of fixed attachment.

Regarding claims 28, 29, 37, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 27, the device further comprising: a housing which encloses the interface board, the modem and the logic, where the housing provides a compact configuration for the handheld communication device (see Tso figure 1b, numbers 109, 114, 102, 110, column 2, lines 19-36).

Regarding claims 31 and 38, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 26, wherein the indicator is activated while the personal data assistant is running another application (see Oh figure 4, numbers 43, 44, 46, figure 5).

Regarding claim 32, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 26, wherein the logic checks for communications received by the modem while the personal data assistant is running another application (see DiGiorgio column 3,

Art Unit: 2682

lines 65-column 4, lines 42, column 6, lines 1-22, column 8, lines 66-column 9, lines 44, abstract).

Regarding claim 35, the combination Tso, Oh and DiGiorgio disclose a handheld communication device as recited in claim 26, wherein the message notifications indicate when a user receives communications (see Oh figure 3, numbers 32 and 33, 31 and 36).

Regarding claim 41, the combination Tso, Oh and DiGiorgio disclose wherein the logic activates an indicator if communications have been received (see Oh figure 3, number 31 and 36).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2682


CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alemayehu Behulu whose telephone number is 703-305-4828. The examiner can normally be reached on 8 AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

  
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